

## **CLAIMS**

What is claimed is:

- 1 1. A computer-implemented method for managing sessions between mobile  
2 communication devices and an application program hosted on a data processing system  
3 with a gateway module that is coupled to the mobile communications devices and to the  
4 application program, comprising:  
5       generating at the gateway module respective first session identifiers upon receipt of  
6 initial requests from the mobile communication devices at the gateway module and  
7 transmitting the first session identifiers to the application program;  
8       associating the first session identifiers with corresponding second session  
9 identifiers from the application program at the gateway module; and  
10       in response to subsequent communications from the mobile devices to the  
11 application program, transmitting from the gateway module to the application program the  
12 second session identifiers that are associated with the first session identifiers of the mobile  
13 devices of the subsequent communications.
- 1 2. The method of claim 1, further comprising:  
2       receiving requests of a first type from the mobile devices at the gateway module  
3 and transferring the first type requests to an authentication module that manages user  
4 authentication; and  
5       when a user at a mobile device has not logged-in to the authentication module,  
6 transmitting a log-in prompt from the authentication module to the mobile device in  
7 response to a request of the first type from the mobile device.
- 1 3. The method of claim 2, further comprising generating at the authentication module  
2 respective authentication identifiers for the first session identifiers and associating the  
3 authentication identifiers with corresponding first session identifiers.
- 1 4. An apparatus for managing sessions between mobile communication devices and  
2 an application program hosted on a data processing system, comprising:

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3 means for generating respective first session identifiers upon receipt of initial  
4 requests from the mobile communication devices and transmitting the first session  
5 identifiers to the application program;

6 means for associating the first session identifiers with corresponding second  
7 session identifiers from the application program; and

8 means for transmitting the second session identifiers that are associated with the  
9 first session identifiers of the mobile devices to the application program in response to and  
10 in association with subsequent communications from the mobile devices directed to the  
11 application program.

1 5. A computer-implemented method for managing shopping sessions between  
2 wireless communication devices and a merchant application with a gateway module that  
3 is coupled to the mobile communications devices and to the merchant application,  
4 comprising:

5 generating at the gateway module respective wireless session identifiers upon  
6 receipt of initial requests from the wireless communication devices at the gateway module  
7 and transmitting the wireless session identifiers to the merchant application;

8 generating at the merchant application respective merchant session identifiers for  
9 the wireless session identifiers and transmitting the merchant session identifiers to the  
10 gateway module;

11 associating the wireless session identifiers with corresponding merchant session  
12 identifiers at the gateway module; and

13 in response to subsequent communications from the mobile devices to the  
14 merchant application, transmitting from the gateway module to the merchant application  
15 the merchant session identifiers that are associated with the wireless session identifiers of  
16 the mobile devices of the subsequent communications.

1 6. The method of claim 5, further comprising:

2 receiving checkout requests from the wireless communication devices at the  
3 gateway module and transferring the checkout requests to a wallet module that manages  
4 user authentication;

5 when a user at a wireless communications device has logged-in to the wallet  
6 module, transmitting payment options from the wallet module to the wireless

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7 communications device in response to a checkout request from the wireless  
8 communications device; and  
9 when a user at a wireless communications device has not logged-in to the wallet  
10 module, transmitting a log-in prompt from the wallet module to the wireless  
11 communications device in response to a checkout request from the wireless  
12 communications device.

1 7. The method of claim 6, further comprising generating at the wallet module  
2 respective wallet session identifiers for the wireless session identifiers and associating the  
3 wallet session identifiers with corresponding wireless session identifiers in a wallet session  
4 identifier table.

1 8. The method of claim 7, further comprising, in response to a payment request from  
2 a wireless communications device, transmitting the payment request from the gateway  
3 module to the merchant application, disassociating the wireless session identifier from the  
4 corresponding merchant session identifier, and generating a new wireless session identifier  
5 for the wireless communications device when another initial request is received from the  
6 wireless communications device.

1 9. The method of claim 8, further comprising clearing inactive entries from the wallet  
2 session identifier table.

1 10. An apparatus for managing shopping sessions between wireless communication  
2 devices and a merchant application, comprising:  
3 means for generating respective wireless session identifiers upon receipt of initial  
4 requests from the wireless communication devices and transmitting the wireless session  
5 identifiers to the merchant application;  
6 means for associating the wireless session identifiers with corresponding merchant  
7 session identifiers received from the merchant application; and  
8 means for transmitting the merchant session identifiers that are associated with the  
9 wireless session identifiers of the wireless devices to the merchant application in response  
10 to and in association with subsequent communications from the wireless devices directed  
11 to the merchant application.

- 1 11. A system for managing sessions between mobile communication devices and an  
2 application program hosted on a data processing system, comprising:  
3 a mobile interface configured and arranged to connect with a plurality of mobile  
4 communication devices;  
5 a gateway coupled to the mobile interface and to the application program, the  
6 gateway configured to generate respective first session identifiers upon receipt of initial  
7 requests from the mobile communication devices, associate the first session identifiers  
8 with corresponding second session identifiers received from the application program, and  
9 transmit the second session identifiers that are associated with the first session identifiers  
10 to the application program in response to and associated with subsequent communications  
11 from the mobile devices to the application program.
- 1 12. The system of claim 11, further comprising an authentication module coupled to  
2 the mobile interface and to the gateway, the authentication module configured to transmit  
3 a log-in prompt to a mobile device in response to a request of the first type from the  
4 mobile device.
- 1 13. The system of claim 12, wherein the authentication module is further configured to  
2 generate respective authentication identifiers for the first session identifiers and associate  
3 the authentication identifiers with corresponding first session identifiers.